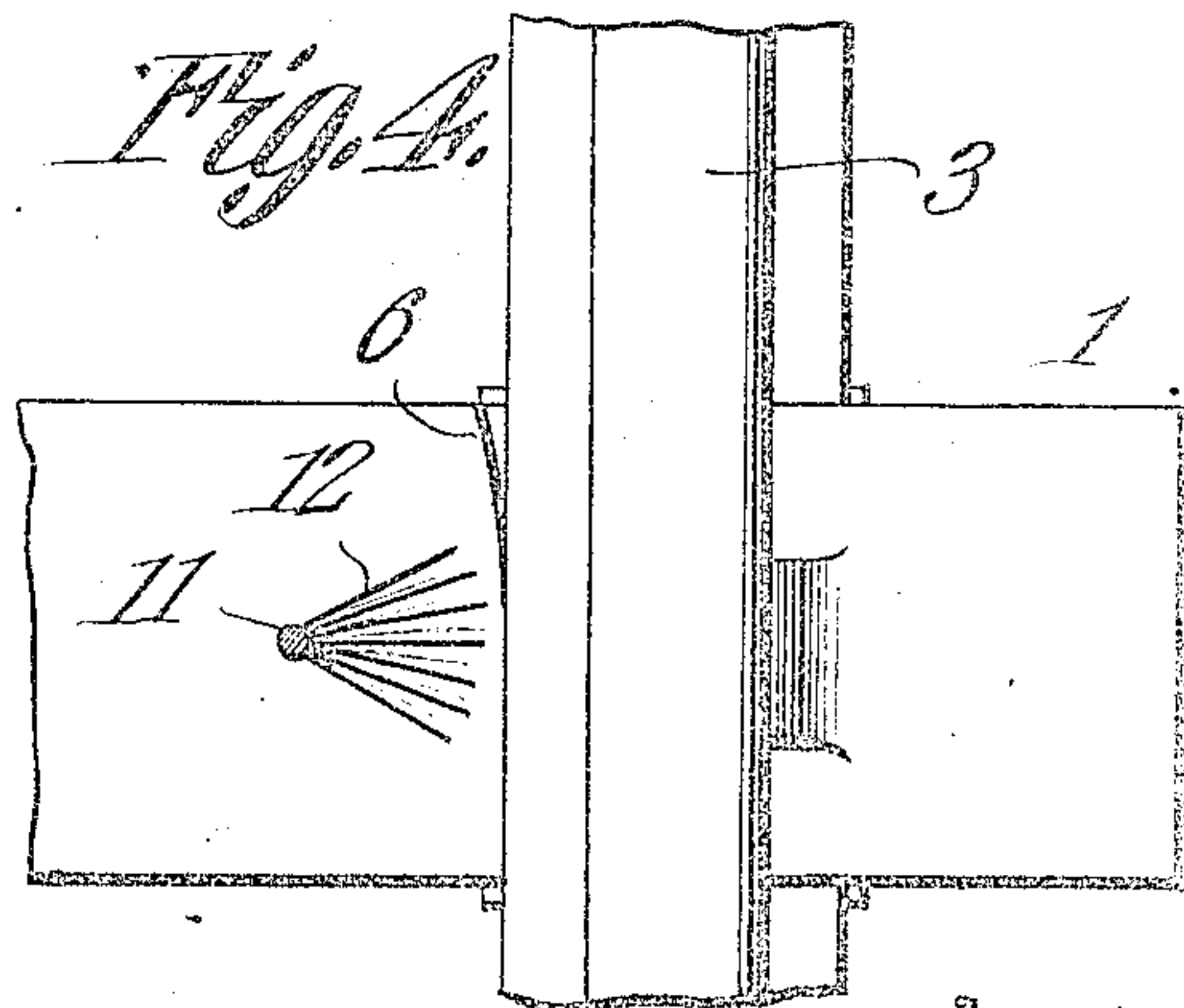
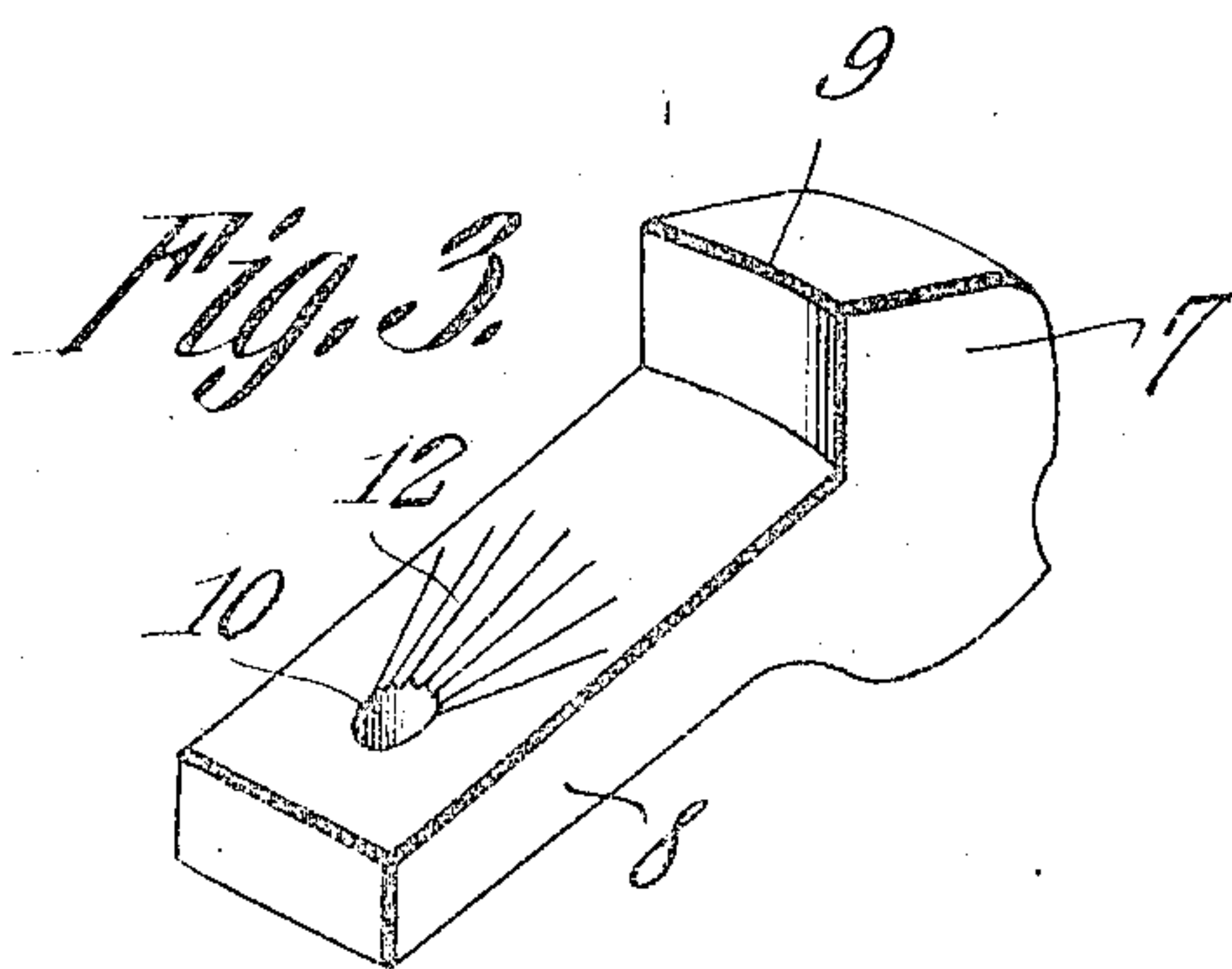
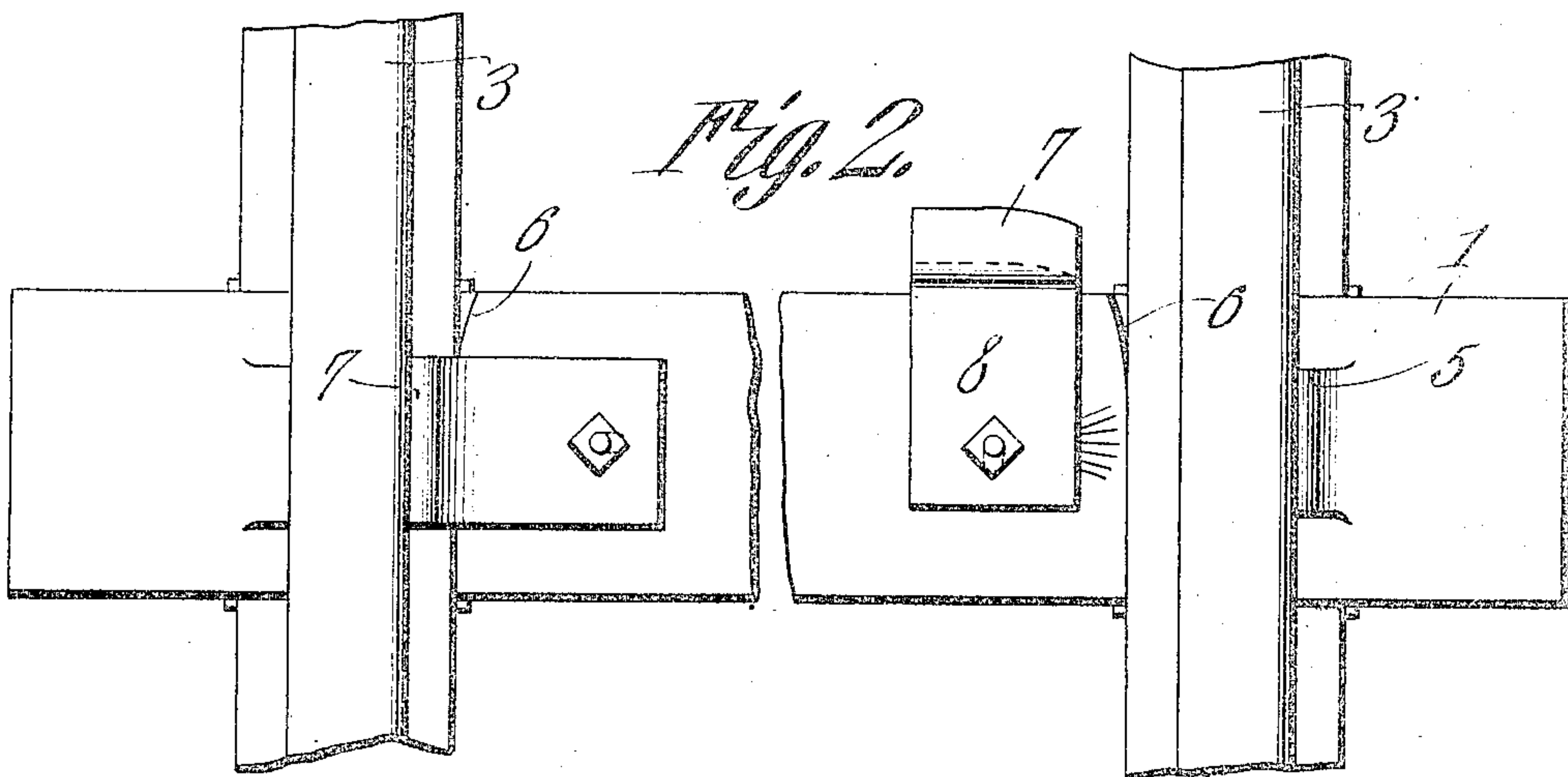
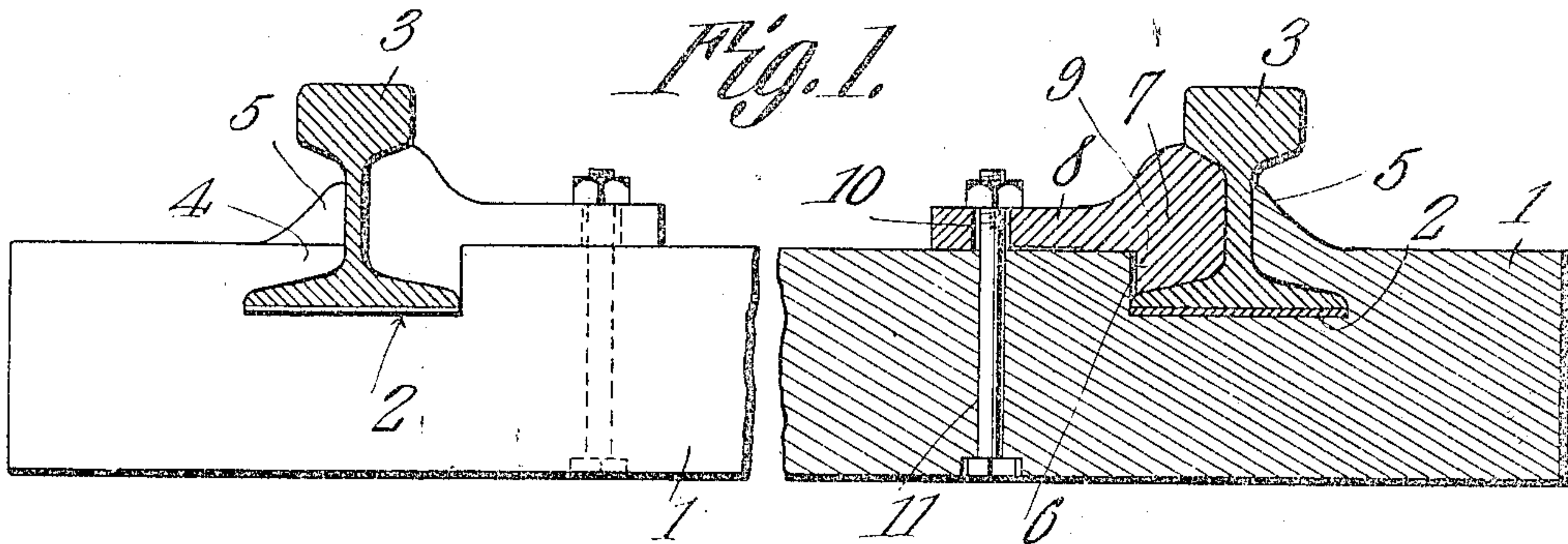


G. W. WAGNER.
RAILROAD TIE.
APPLICATION FILED FEB. 6, 1909.

935,133.

Patented Sept. 28, 1909.



Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE W. WAGNER, OF HUNTERSVILLE, WEST VIRGINIA.

RAILROAD-TIE.

935,133.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed February 6, 1909. Serial No. 476,436.

To all whom it may concern:

Be it known that I, GEORGE W. WAGNER, a citizen of the United States, residing at Huntersville, in the county of Pocahontas and State of West Virginia, have invented a new and useful Railroad-Tie, of which the following is a specification.

This invention relates to metallic railroad ties and more particularly to means combined therewith whereby rails may be securely fastened to the tie.

The object of the invention is to provide rail-fastening devices designed to tightly clamp the web and base flanges of a rail against the gripping face of the tie, said clamping means being arranged to cooperate with a cam whereby it is caused to properly clamp a rail irrespective of any slight variation in the proportions of the tie or fastening device.

Another object is to provide simple means for securing the rail-fastening device in adjusted position.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a view partly in front elevation and partly in section of a tie embodying the present improvements, the rails thereon being shown in section. Fig. 2 is a plan view of the tie and of portions of the rails thereon, one of the fastening devices being shown shifted out of clamping position. Fig. 3 is a perspective view of one of the fastening devices inverted. Fig. 4 is a plan view of one end portion of the tie and with the fastening device removed therefrom.

Referring to the figures by characters of reference 1 designates an all metal tie having transversely extending recesses 2 in the upper face thereof, each recess constituting a seat for a rail 3. The outer wall of each recess overhangs the bottom of the recess as shown at 4 and is so shaped and proportioned as to lap and bear upon the outer base flange of the rail 3. A projection 5 may be formed upon this overhanging portion 4 for the purpose of bearing against the outer surface of the web of the rail. The inner wall of the recess 2 is rounded as indicated at 6 to form a cam face against which the head

7 of the rail-locking device is designed to work.

As shown especially in Fig. 3, the rail-locking device consists of a block 8 having the head 7 at one end thereof, said head being provided below the block 8 with a shoulder 9 designed to extend into the recess 2 and to bear against the cam face 6. The bottom and end faces of the head are so shaped as to fit snugly upon the inner base flange, and against the inner face of the web of the rail. A slightly elongated opening 10 is formed in the block 8 and is designed to receive a bolt 11 extending upwardly through the tie 1, a nut being provided as usual for the purpose of forcing the block 8 downwardly against the upper surface of the tie. The meeting faces of the block and tie are preferably roughened or formed with radial ribs 12, designed to interengage, so that after the block has once been tightened upon the tie it becomes impossible for the same to swing out of the position to which it has been adjusted.

When it is desired to secure a rail to this tie it is inserted into the proper recess 2 so that the outer base flange of said rail is lapped by the wall 4 of the recess. The fastening device, which is in the position shown at the right of Fig. 2, is then swung upon the bolt 11 so as to bring the head 7 into one end of the recess 2 and between the rail 3 and the cam 6. This head is designed to be driven between the cam and the rail and will be forced against the rail by the cam face 6, so as to tightly bind the rail against the wall 4 and projection 5. After the head has been shifted as far into the recess 2 as is permissible the block 8 is clamped upon the upper face of the tie by means of the nut on bolt 11 and the roughened or ribbed faces of the tie and block thus engage and prevent the block and head from shifting out of the positions to which they have been adjusted.

It is to be understood that various changes may be made in the construction and arrangement of the parts without departing from the spirit or sacrificing the advantages of the invention.

What is claimed is:—

1. The combination with a tie having rail-receiving recesses, one wall of each recess being shaped to overhang a base flange of a rail; of a rail-fastening device pivotally mounted upon the tie adjacent each recess, each device having a head movable into the

recess and against the rail therein, and means for securing the fastening device against movement relative to the tie.

2. The combination with a tie having recesses therein constituting seats for rails, one wall of each recess overhanging the bottom thereof for engaging a base flange of a rail, the other wall of each recess constituting a cam; of a fastening device pivotally mounted upon the tie and adjacent each recess, each fastening device having a head movable into one end of the adjoining recess and against the rail within said recess, said cam cooperating with a head to shift the fastening device against the rail, and means for securing the fastening device against movement relative to the tie.

3. The combination with a tie having rail-receiving recesses, one wall of each recess

being curved to constitute a cam, the other wall of each recess constituting rail-engaging means; of a rail-fastening device pivotally mounted upon the tie adjacent each recess, and having a rail-engaging head insertible into the end portion of the adjoining recess and shiftable by the cam into engagement with the rail within the recess, a clamping device within the tie and slidably engaged by the fastening device, and means for securing said fastening device against movement relative to the tie.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

G. W. WAGNER.

Witnesses:

N. C. McNEIL,
S. L. BROWN.